1.0 PURPOSE
The purpose of this procedure is to present the requirements for conducting and documenting Confined Space Program evaluation, and to outline the employee training and retraining requirements of the Confined Space Program at the National Cancer Institute (NCI) at Frederick and the Frederick National Laboratory for Cancer Research (FNLCR).

2.0 SCOPE
In accordance with 29 Code of Federal Regulations (CFR) 1910.146 and the American National Standards Institute/American Society of Safety Engineers (ANSI/ASSE) Z117.1, all confined space workers must acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned to confined space entry. Both initial and refresher training are required to maintain competence in confined space entry procedures and precautions. Furthermore, the physical and psychological suitability of all confined space workers will be considered as needed prior to working in confined spaces.

Per the Occupational Safety and Health Administration (OSHA) and ANSI/ASSE, periodic assessment of the effectiveness of confined space training and evaluation will be conducted. Moreover, the entire Confined Space Program will be periodically reviewed to ensure that workers who are participating in confined space entry operations are protected from confined space hazards.

No entry into confined spaces at NCI at Frederick and FNLCR is permitted without documented training and medical evaluation and adherence to the overall provisions of an effective Confined Space Program.

3.0 PROCEDURE

<table>
<thead>
<tr>
<th>Step</th>
<th>Job Role</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All Personnel with Confined Space duties</td>
<td>Be familiar with the general responsibilities associated with this procedure and what training is required.</td>
</tr>
<tr>
<td>2</td>
<td>EHS</td>
<td>2.1 Provide training on all confined space entry procedure requirements (see Appendix A) and certify that training has been received per worker.</td>
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<td>2.2 Review the medical suitability of all workers in the Confined Space Entry Program (see Appendix B).</td>
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<td>2.3 Every 12 months, conduct a review of the Confined Space Entry Program, including training compliance, entry compliance, and overall Program effectiveness (see Appendix C).</td>
</tr>
<tr>
<td>3</td>
<td>Department Supervisors</td>
<td>3.1 Determine that personnel receive confined space entry training as outlined in Appendix A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 Provide employees with training on equipment and processes that are specific to the work to be involved in confined spaces (i.e., lockout/tagout, specialized tool procedures, etc.).</td>
</tr>
</tbody>
</table>
4.0 RECORDS
The following records are relevant to this procedure:

<table>
<thead>
<tr>
<th>Record</th>
<th>Custodian</th>
<th>Storage Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confined Space Training Certification</td>
<td>EHS</td>
<td>Electronic</td>
</tr>
<tr>
<td>Confined Space Program Reviews</td>
<td>EHS</td>
<td>Electronic</td>
</tr>
</tbody>
</table>

5.0 RELATED DOCUMENTS
The following documents provide requirements and background information relevant to all confined space entry procedures of this Program:

- 29 CFR 1910.146, Permit-Required Confined Spaces
- ANSI/ASSE Z117.1, Safety Requirements for Confined Spaces

6.0 DEFINITIONS
Definitions applicable to all confined space entry procedures are provided in EHS-SAF-21.1, Confined Space Entry Program Overview.

7.0 ABOUT THIS PROCEDURE
Issuing organization: EHS
Final approver: Terri Bray
Subject matter expert: Michael Gearheart
Review cycle (months): 12
Date last revised: initial issue
Date last reviewed: initial issue

8.0 SUMMARY OF CHANGES IN THIS VERSION

9.0 APPENDICES
Appendix A: Confined Space Entry Program Training Requirements
Appendix B: Confined Space Entry Program Medical Review
Appendix B: Confined Space Entry Program Review Requirements
APPENDIX A: CONFINED SPACE ENTRY PROGRAM TRAINING REQUIREMENTS

Training must be provided to all NCI at Frederick and FNLCR workers whose work is regulated by the Confined Space Entry Program. Confined space entry workers must acquire the understanding, knowledge, and skills necessary for the safe performance of their duties for confined spaces.

I. Training Frequency

EHS will provide training to each employee:

1. before the employee is first assigned duties within a confined space;
2. before there is a change in assigned duties;
3. when there is a change in permit space operations that presents a hazard for which an employee has not been trained; and
4. when EHS has reason to believe that there are deviations from the confined space entry procedures required in this program, or that there are inadequacies in the employee’s knowledge or use of these procedures.

The training will establish employee proficiency in the duties required in the Confined Space Entry Program, and will introduce new or revised procedures, as necessary, for compliance with the Program.

II. General Training

All workers who will enter confined spaces shall be trained in entry procedures. Personnel responsible for supervising, planning, entering, or participating in confined space entry and rescue shall be adequately trained in their functional duties prior to any confined space entry. Training shall include:

2. Explanation of the general hazards associated with confined spaces.
3. Discussion of specific confined space hazards associated with confined space locations at NCI at Frederick and FNLCR.
4. Reason for, proper use of, and limitations of personal protective equipment and other safety equipment required for entry into confined spaces.
5. Explanation of permits and other procedural requirements for conducting a confined space entry.
6. A clear understanding of conditions that prohibit entry.
7. Procedures for responding to emergencies.
8. Duties and responsibilities of the confined space entry team.
9. Description of how to recognize symptoms of overexposure to probable air contaminants in themselves and co-workers, and methods for alerting the Attendant.

Refresher training shall be conducted at least annually to maintain employee competence in entry procedures and precautions.

III. Specific Training

1. Training for atmospheric monitoring personnel shall include proper use of monitoring instruments, including instruction on the following:
   a. proper use of the equipment;
b. calibration of equipment;
c. sampling strategies and techniques; and
d. exposure limits (PELs, TLVs, LELs, UELs, etc.).

2. Training for Attendants shall include the following:
   a. procedures for summoning rescue or other emergency services; and
   b. proper utilization of equipment used for communicating with entry and emergency/rescue personnel.

3. Training for NCI at Frederick and FNLCR Personnel that will potentially be involved in Emergency Response shall include:
   a. rescue plan and procedures developed for each type of confined space that is anticipated to be encountered;
   b. use of emergency rescue equipment;
   c. first aid and CPR techniques; and
   d. work location and confined space configuration to minimize response time.

IV. Verification of Training

Periodic assessment of the effectiveness of confined space worker training shall be conducted by EHS.
APPENDIX B: CONFINED SPACE ENTRY PROGRAM MEDICAL REVIEW

Per ANSI/ASSE Z117.1, the physical and psychological suitability of confined space workers should be considered if they are expected to adequately perform duties in confined spaces. Work in confined spaces may involve a variety of stressors which should be evaluated by Occupational Health and Safety (OHS) against an essential job function specific to the confined space. Examples include, but are not limited to, thermal extremes (hot or cold), vertigo, claustrophobia, and physical and psychological stressors associated with specific confined space environments.

Observation during field activities associated with confined space work or training may be useful in assessing the physical or psychological medical suitability of personnel assigned to confined space work. The department supervisor and EHS should collectively make the final decision regarding medical suitability after reviewing recommendations and input from OHS.
APPENDIX C: CONFINED SPACE ENTRY PROGRAM REVIEW REQUIREMENTS

At least every 12 months, EHS will conduct a review of the Confined Space Entry Program; focusing on programmatic procedures, practices, and personnel. The primary focus of the review is to ensure that workers participating in the Confined Space Entry Program are protected from confined space hazards. The annual review must include the following:

1. The EHS inspector (i.e. the Confined Space Coordinator) must be able to determine:
   a. Are the steps in the Confined Space Entry Program procedures being followed?
   b. Do the employees involved know their responsibilities under the procedures?
   c. Are the procedures adequate to provide the necessary protection, and if not, what changes are needed?

2. The EHS inspector must talk with the confined space workers, and observe at least one of each of the confined space entry classifications (i.e., PRCS, PRCS-LOTO, non-PRCS-Two Person Rule, and non-PRCS-Authorized Personnel Only) in progress each year in order to make these determinations.

3. Inadequacies identified during the review must be noted and a determination must be made of what appropriate corrective actions should be implemented.

4. The inspector must interview each Confined Space Entry Supervisor and Department Supervisor included in the Confined Space Entry Program to determine that the Entry Supervisor and Department Supervisor roles and responsibilities are understood, that confined spaces signage and labeling is up to date, and that space-specific confined entry procedures are effective.

5. Confirming adequate lockout/tagout of potentially hazardous stored or residual energy must be included as part of the review.

6. The review must be documented and a copy of the report shared with departments reviewed.

Note, examples of circumstances that may accelerate the review of the Confined Space Entry Program, such that review is conducted less than annually, include:

- any unauthorized entry of a permit space,
- the detection of a permit space hazard not covered by the permit,
- the detection of a condition prohibited by the permit,
- the occurrence of an injury or near-miss during entry,
- a change in the use or configuration of a permit space, and
- employee complaints about the effectiveness of the Program.